



Oregon

John A. Kitzhaber, M.D., Governor

July 2, 2001

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Department of Environmental Quality

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Mr. John L. Childs, P.E.
Marine Operations
Port of Portland
7201 N. Marine Drive
Portland, OR 97203

Re: Port of Portland's Dredge Material Rehandle Facility (Terminal 6)

Dear Mr. Childs:

Thank you for contacting the Department of Environmental Quality (DEQ), seeking a determination that the dredge material from the Port of Portland (Port) rehandle facility pilot project is exempt from the permitting requirements of Oregon Administrative Rules (OAR) 340-093-0050 that address solid waste management. We appreciate your patience to allow us to coordinate a response between DEQ's Solid Waste, Clean Up, Water Quality and Hazardous Waste Programs.

Background

On May 10, 2000, the Port met with DEQ to discuss a Dredge Material Rehandling Facility Pilot Project. The rehandle facility would allow the Port to temporarily store and de-water dredged materials prior to their final disposition. The purpose of the pilot project was to demonstrate and document the planning, analytical, and decision-making steps used by the Port to complete this project and develop options for beneficial use of dredged material.

Dredging has since been completed with the Port's existing Section 10 permit, a Clean Water Act (CWA) section 404 permit, and CWA section 401 water quality certification. The Port has used a rehandle facility at Terminal 6 to de-water the dredged materials.

On May 8, 2001, representatives from DEQ's Solid Waste and Cleanup Programs met with you to discuss your plans to move the de-watered dredge material to the upland area of Berth 602 (Terminal 6). DEQ staff discussed the process for seeking exemption from the requirement to obtain a solid waste permit and requested you submit an application for a Solid Waste Permit Exemption Determination. Your May 25, 2001 letter requests a determination from DEQ that the fill activity does not constitute disposal of solid waste. As discussed below, based on Oregon Statutes and Administrative Rules, DEQ considers the contaminated dredged sediments to be a solid waste. Therefore, we are considering the Port's letter as a request for a permit exemption as set forth in OAR 340-093-0080(2).



Discussion of the Port Proposal

The proposed activity involves moving approximately 8,000 cubic yards (cy) of de-watered dredged material (about 1,500 cy from Terminal 5 and 6,500 cy from Terminal 6) from the rehandle facility to the upland area of Berth 602 (Terminal 6). The following discussion and analysis are based on information contained in:

- 1) Port's letter dated May 25, 2001, and
- 2) "Dredged Material Characterization Study: Marine Terminal 6, Berths 603-605; Marine Terminal 5, Berth 503", prepared by Hart Crowser; November, 2000

Terminal 5 is located along the east bank of the Willamette River at river mile 1.0. Berth 503 is a dry bulk terminal that mainly handles potash. Terminal 6 is located on the Oregon Slough along the south bank of the Columbia River at river mile 102. Terminal 6, Berth 603-605 is the Port's primary container facility.

Subsurface sediment coring was completed at Terminal 6, Berths 603-605, at nine locations on September 12 through 14, 2000. One volume-weighted composite sample was created from the 46 cores total. Subsurface sediment coring was completed at Terminal 5, Berth 503, at two locations on September 15, 2000. One volume-weighted composite sample was prepared from the nine cores total.

Bulk sediment chemistry, contaminant mobility testing, and leachate testing were conducted to evaluate the potential exposure pathways, including: (a) discharge of the effluent return water over the weir into the Columbia River at the rehandle facility, (b) infiltration of dredge material leachate in the subsurface soils, under the facility berm, and out into the river bank, and (c) infiltration of leachate into the subsurface soils and the underlying aquifer.

Arsenic concentrations ranged from 2.7 to 5.2 mg/kg in the dredged material. These concentrations are above the residential PRG of 0.39 mg/kg. Despite this exceedance, these values are within typical background concentrations for arsenic soils in the area. The concentration of benzo(a)pyrene in sediment samples from Terminal 6 were 23 and 24 $\mu\text{g/kg}$ for approximately 6,500 cy of materials. 1,500 cy of material from Terminal 5 contained a concentration of 97 $\mu\text{g/kg}$. The residential PRG for benzo(a)pyrene is 62 $\mu\text{g/kg}$.

Synthetic Precipitation Leaching Procedure (SPLP) was used on samples to evaluate protection of groundwater at the fill location. Constituents in SPLP leachate are mostly below the drinking water criteria (for groundwater protection), except for arsenic and DDT. Levels for arsenic were within background levels and the DDT analysis did not show levels at which surface or groundwater could be impacted.

The grain size of the composite sample from Terminal 5, Berth 503, consists of 91 percent fines and is classified as slightly sandy, clayey silt. The composite sample from Terminal 6, Berths 603-605 consists of 70 percent fines, and is classified as slightly clayey, very sandy silt.

Comments on the Port's Proposal

Dredge Materials vs. Clean Fill: In reviewing the May 25, 2001 letter, it appears that there may be some confusion as to the regulatory definition of "clean fill", and the regulatory process for obtaining a Solid Waste Permit Exemption. As discussed at the May 8, 2001 meeting dredged materials need to be evaluated to determine whether they can be classified as "clean fill". Clean fill is defined in OAR 340-93-0030 (13), as:

"material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants which could adversely impact the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes and industrial solid wastes."

The Department recognizes that sediments originating from the Willamette and Columbia River may be impacted to varying degrees by a number of pollutants. The Port's testing by Hart Crowser confirmed the presence of contaminants in the dredged material. Given the contaminants and DEQ's definition of "clean fill", the Department does not consider these dredged materials to be "clean fill". Therefore, the dredged material is considered solid waste, and needs to be managed in accordance with the appropriate regulations.

The information you have provided demonstrates that the placement of the de-watered dredge material at Terminal 6 would not result in an adverse impact on groundwater, surface water, or public health and safety. This allows the Department to provide an exemption from solid waste permitting requirements for the upland management of the de-watered sediments from the pilot rehandle facility.

As you are aware, the Army Corps of Engineers is in the process of developing guidelines for evaluating material for upland disposal. DEQ's goal is to track the development of such initiatives and establish a more definitive process for dealing with upland disposal issues. Until the Department has established guidance and criteria for various dredged material management, upland disposal, and use alternatives, the Department will continue to process Solid Waste Permit Exemption applications on a case by case basis. The process the Department will use for case by case determinations is set forth in OAR 340-093-0080(2) and the Department approved application materials and guidance for applicants developed in accordance with this rule.

Approval of Port's Proposal

Based on the information submitted to the Department, the Solid Waste Program has determined that:

- The dredged sediments are solid waste as defined by Oregon Statute and Administrative Rule, and do not appear to contain hazardous wastes; however, the Port should confirm to the Department that it completed its hazardous waste determination evaluation pursuant to the protocol contained in OAR 340-102-0011.
- The requirements of OAR 340-093-0080(2) have been demonstrated to the Department's satisfaction, and a Solid Waste Permit Exemption for the upland management of the dewatered dredge material is approved.
- Placement of the 8,000 cy of de-watered dredge material as fill in the upland portion of Berth 602, Terminal 6 will not adversely impact waters of the state or public health; therefore a solid waste permit exemption can and is hereby granted
- As noted in OAR 340-093-0050(3) placement of these dredged materials, though exempted from the Department's solid waste permit requirements, may require other permits from the Oregon Division of State Lands

In the future, if the Port desires to request a Solid Waste Permit Exemption determination, please submit a complete application using the procedures and process set forth in the "Application for a Solid Waste Permit Exemption Determination" together with the required fees. This procedure and process will expedite the Department's review.

If you have any questions about the conclusions or regulatory effect of this letter, feel free to contact me at (503) 229-5151 or Monty Morshed, P.E. Solid Waste Senior Environmental Engineer at (503) 229-5585.

Sincerely,



Ed Druback
Manager, Solid Waste Program
Northwest Region

cc: Monty Morshed, Solid Waste Program, NWR